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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/618,848	07/18/2000	Yuji Nagatani	FAC-001	8622
959	7590	05/01/2006	EXAMINER	
LAHIVE & COCKFIELD 28 STATE STREET BOSTON, MA 02109			CORRIELUS, JEAN B	
			ART UNIT	PAPER NUMBER

2611

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/618,848

Applicant(s)

NAGATANI ET AL.

Examiner

Jean B. Corrielus

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/10/06.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3 and 5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 is/are allowed.
- 6) ☒ Claim(s) 3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/10/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The finality of the last office action is withdrawn in view of the following new ground of rejection.

Allowable Subject Matter

2. After further consideration, Examiner notes that a rejection of claim 3 in view of applicant's admitted prior art Lau and Coetus should have been made since the claimed subject matter reads on the combined references. Accordingly, the indicated allowability of claim 3 is withdrawn. A rejection based on the combined references follows.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art fig. 1 in view of Lau US patent No. 5,896,417 and further in view of Coteus et al US patent No. 6,127,840.

Applicant's admitted prior art (fig. 1) a communication system utilizing two-wire transmission lines (1 and 2) for transmitting a transmission signal represented by two AC components being opposite in phase appearance, comprising: a plurality of nodes

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(3) respectively connected to said two-wire transmission lines (1 and 2), each of said nodes having therewithin: a low pass filter 11 connected to said transmission lines (1 and 2), and a reception circuit (15-19) for receiving said transmission signal, said reception circuit (15-19) including: an AC coupling circuit (15 and 16) for extracting said AC components from said transmission signal on said transmission lines (1 and 2); a bias circuit (17 and 18) for applying a bias voltage to the AC components extracted by said AC coupling circuit (15 and 16).

However, the admitted prior art fig. 1 fails to teach the additional features of "two terminating resistors respectively connected to said transmission lines via said LPF 11 and a clip circuit for clipping the level of each of the extracted AC components".

Lau teaches fig. 1 low pass filter elements 18 for connecting terminating resistors to a transmission line 10. Given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in applicant's admitted prior art fig. 1 so as to prevent reflection of the transmitted signal into the received signal that may lead to cross-talked and or signal interference that may affect signal quality. In addition, note that Coteus et al teaches two clamping circuits (clip circuits) 20 being independent from each other and each for clipping the level of each of the signal (biased AC components) on line 94 at levels between a potential and a ground level see col. 3, lines 23-50 and col. 4, lines 30-48. Given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in applicant's admitted prior art fig. 1 and Lau in order to avoid large power dissipation associated with conventional end-terminated signal lines see Coteus col. 1, lines 45-46 and 63-64.


Allowable Subject Matter

5. Claim 5 is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Corrielus whose telephone number is 571-272-3020. The examiner can normally be reached on Maxi-Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jean B Corrielus
Primary Examiner
Art Unit 2637

4-28-06